



## General surgery and anesthesiology

**ECTS: 3.00**

### SUBJECT MATTER CONTENT

#### LECTURE

The lectures present theoretical issues in the field of soft tissue surgery (including abdominal, chest and head procedures) and an introduction to animal anesthesiology.

#### AUDITORIUM CLASSES

**TUTORIALS:** Acquisition of practical skills in the field of asepsis and antisepsis used in animal surgery. Acquiring the nomenclature of basic and specialized tools used in animal surgery. Acquiring the skill of placing interrupted and continuous sutures and tying surgical knots with the use of phantoms. Presentation of procedures performed during soft tissue surgery. Acquiring skills in the field of animal preparation for general anesthesia (learning to catheterization of blood vessels, performing injections and endotracheal intubation). Presentation of general anesthesia methods in farm animals and accompanying animals (inhalation anesthesia and intravenous anesthesia in the form of boluses and continuous infusions). Practical training of regional anesthesia in selected areas of the body with the use of preparations. Presentation of methods of reacting in emergency situations.

#### PRACTICAL CLASSES

**TUTORIALS:** Acquisition of practical skills in the field of asepsis and antisepsis used in animal surgery. Acquiring the nomenclature of basic and specialized tools used in animal surgery. Acquiring the skill of placing interrupted and continuous sutures and tying surgical knots with the use of phantoms. Presentation of procedures performed during soft tissue surgery. Acquiring skills in the field of animal preparation for general anesthesia (learning to catheterization of blood vessels, performing injections and endotracheal intubation). Presentation of general anesthesia methods in farm animals and accompanying animals (inhalation anesthesia and intravenous anesthesia in the form of boluses and continuous infusions). Practical training of regional anesthesia in selected areas of the body with the use of preparations. Presentation of methods of reacting in emergency situations.

#### TEACHING OBJECTIVE

The aim of education will be to acquire basic skills in the basics of veterinary surgery, as well as the principles of methods and mechanisms of veterinary anesthesiology and postoperative care.

**DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY:**

**Symbols for outcomes related to the discipline:**

R/WA\_P7S+++

**Legal acts specifying learning outcomes:**  
**682/2020**  
**Disciplines:** Veterinary science  
**Status of the course:** Obligatoryjny  
**Group of courses:** B - przedmioty kierunkowe  
**Code:** ISCED 0841  
**Field of study:** Veterinary Medicine  
**Scope of education:**  
**Profile of education:** General academic  
**Form of studies:** full-time  
**Level of studies:** uniform master's studies  
**Year/semester:** 3/6

**Types of classes:** Lecture, Auditorium classes, Practical classes  
**Number of hours in semester:** Lecture: 15.00, Auditorium classes: 20.00, Practical classes: 10.00  
**Language of instruction:** Polish  
**Introductory subject:** Anatomy, topographic anatomy, physiology, pathophysiology, pharmacology  
**Prerequisites:** Ability to tame animals, knowledge of the topography of individual organs, the mechanisms of action of drugs used in anesthesia of animals and their doses, knowledge of the pharmacodynamics and pharmacokinetics of drugs from the group of antibiotics and anti-inflammatory drugs

**Name of the organisational unit conducting the course:** Katedra Chirurgii i Rentgenologii z Kliniką  
**Person responsible for the realization of the course:** dr hab. wet. Yauheni Zhalniarovich, prof. UWM  
**e-mail:** eugeniusz.zolnierowicz@uwm.edu.pl

**Additional remarks:**

## Symbols for outcomes related to the field of study:

B.U12. +, A.U14. +, A.W16. +, A.U16. +, B.U14. +, K.8.+,  
A.W5. +, K.10.+, B.W2. +, B.U4. +, B.W1. +, A.W1. +, B.W5. +,  
B.U3. +, B.W6. +, A.W2. +, B.U11. +, B.U13. +, K.9.+, A.U12.  
+, B.W4. +

## LEARNING OUTCOMES:

### Knowledge:

W1 – Defines and describes the mechanisms of action of specific groups of drugs used for premedication and anesthesia of animals. He knows the procedure and drugs used during postoperative care for patients.

### Skills:

U1 – He can implement the principles of surgical asepsis and antiseptics and use appropriate methods of sterilization of surgical instruments. He can prepare the operating room for treatments.

### Social competence:

K1 – He puts the patient's well-being in the first place. He aims to broaden his knowledge of surgery and anaesthesiology.

## TEACHING FORMS AND METHODS:

Lecture(W1;U1;K1):Lectures in the form of original multimedia presentations, interactive with the possibility of discussing and discussing clinical cases.

Auditorium classes(W1;U1;K1):Students acquire basic surgical skills on phantoms, specimens and clinical patients. In teaching, it is planned to demonstrate functioning and operation of the clinic's equipment (anesthesia machines, cardiomonitors) and familiarization with the rules of conduct at operating theater and postoperative care for patients after operations.

Practical classes(W1;U1;K1):Students acquire basic surgical skills on phantoms, specimens and clinical patients. In teaching, it is planned to demonstrate functioning and operation of the clinic's equipment (anesthesia machines, cardiomonitors) and familiarization with the rules of conduct in the operating theater and postoperative care for patients after operations.

## FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:

Lecture (Oral test) - Oral test - There are 2 oral tests per semester. The material includes the content presented in lectures and exercises. The grade for the test is issued on the basis of the arithmetic mean value of the grades obtained for each question. The rounding of the score is based on the following value ranges: mean  $\geq 4.76$ : very good (5.0); average in the range of 4.26-4.75: good plus (4.5); average in the range: 3.76 - 4.25: good (4.0); average in the range of 3.26 - 3.75: sufficient plus (3.5); mean  $\leq 3.25$ : satisfactory (3.0). The student may attempt to correct the test twice. The condition for receiving the final pass from the exercises is to obtain positive marks from all tests taking place in the course of the classes. In case of passing all the tests, the final grade for the exercises is issued on the basis of the arithmetic mean value of all the grades obtained in the tests (including failing grades). The rounding of the evaluation is done on the basis of the above-mentioned ranges of values. Failure to pass any of the tests is tantamount to obtaining an unsatisfactory final grade in the subject. In the event of a top-down suspension of classroom classes and the necessity of distance learning, the methods of verifying the achievement of learning outcomes declared in the syllabus, i.e. the forms of passing the exam and exercises, may change in a manner appropriate to the situation. -

Auditorium classes (Oral test) - Oral test - There are 2 oral tests per semester. The material includes the content presented in lectures and exercises. The grade for the test is issued on the basis of the arithmetic mean value of the grades obtained for each question. The rounding of the score is based on the following value ranges: mean  $\geq 4.76$ : very good (5.0); average in the range of 4.26-4.75: good plus (4.5); average in the range: 3.76 - 4.25: good (4.0); average in the range of 3.26 - 3.75: sufficient plus (3.5); mean  $\leq 3.25$ : satisfactory (3.0). The student may attempt to correct the test twice. The condition for receiving the final pass from the exercises is to obtain positive marks from all tests taking place in the course of the classes. In case of passing all the tests, the final grade for the exercises is issued on the basis of the arithmetic mean value of all the grades obtained in the tests

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Practical classes (Colloquium practical) - Practical test - There is 1 practical test in the field of preparation of the operating room and surgical suturing techniques during the semester. To pass the test, you should give correct answers and complete the part correctly. The grading of grades is based on the score thresholds described in the faculty procedure "Principles of grading students". The student may attempt to correct the test twice. The condition for receiving the final exam in the exercises is to obtain positive marks from all three tests (two oral and one practical) held during the course. In case of passing all the tests, the final grade for the exercises is issued on the basis of the arithmetic mean value of all the grades obtained in the tests. Failure to pass any of the tests is tantamount to obtaining an unsatisfactory final grade in the exercises. In the event of a top-down suspension of classroom classes and the necessity of distance learning, the methods of verifying the achievement of learning outcomes declared in the syllabus, i.e. the forms of passing the exam and exercises, may change in a manner appropriate to the situation. -

#### **BASIC LITERATURE:**

1. Muir WW, Hubbell JAE, Bednarski RM, Skarga RT, *Anestezjologia weterynaryjna*, Wyd. Elsevier Urban, R. 2007
2. T. Duke-Novakowski, M. de Vries, C. Seymour, *Anestezjologia i leczenie przeciwbólowe psa i kota*, Wyd. BSAVA, R. 2017
3. Paddelford RR, *Znieczulenie ogólne u małych zwierząt*, Wyd. SIMA WLW, R. 2004
4. T.W. Fossum, *Chirurgia małych zwierząt*, Wyd. Elsevier Urban, R. 2009
5. Żakiewicz M, *Chirurgia małych zwierząt*, Wyd. Państwowe Wydawnictwo Rolnicze i Leśne, R. 1998
6. Scheibitz H., Brass W, *Techniki operacyjne psów i kotów*, Wyd. Galaktyka, R. 2007

#### **SUPPLEMENTARY LITERATURE:**

1. Doherty T., *Manual of Anesthesia and Analgesia*, Wyd. PWL, R. 2010
2. Ratajczak K, *Anestezjologia weterynaryjna*, Wyd. Państwowe Wydawnictwo Rolnicze i Leśne, R. 1985